

CLAIMS

[1] An inkjet printer, comprising:

a print head having a plurality of ink nozzles arranged in a direction perpendicular to a direction of feeding a print medium;

5 a print head control circuit which drives said print head in the direction perpendicular to the direction of feeding the print medium;
a position detection circuit which detects a position of the print medium with respect to said print head; and

a print control circuit which performs printing on a print area whose width is smaller
10 than a maximum print width of said print head by using predetermined ink nozzles of said print head while moving the print medium relative to said print head, moves said print head in the direction perpendicular to the direction of feeding the print medium via said print head control circuit each time it has performed printing a predetermined number of times while moving the print medium based on the position detected by said position
15 detection circuit, and again performs printing on said print area by using ink nozzles which are different at least partly from said predetermined ink nozzles.

[2] The inkjet printer according to claim 1,

wherein said print control circuit performs printing in a state that a position of said print head in the direction perpendicular to the direction of feeding the print medium is
20 fixed, moves said print head via said print head control circuit in the direction perpendicular to the direction of feeding the print medium each time it has performed printing the predetermined number of times, and again performs printing in a state that said print head is fixed.

[3] The inkjet printer according to claim 1,

25 wherein: said print control circuit performs a control of moving said print head via said print head control circuit from an initial position at which printing on said print area is performed for a first time to one end of movement along the direction perpendicular to

the direction of feeding the print medium while repeatedly performing printing on said print area; and

performs a control of moving said print head via said print head control circuit from said one end of movement to said initial position along the direction perpendicular to the 5 direction of feeding the print medium while repeatedly performing the same printing on said print area.

[4] The inkjet printer according to claim 1,

wherein: said print head control circuit comprises a buffer memory on which a dot pattern, which is objective data to be printed, is expanded; and

10 said print head control circuit shifts a position at which the print-object dot pattern data is expanded in accordance with movements of said print head.

[5] The inkjet printer according to claim 1,

wherein said position detection circuit comprises:

15 a sensor which detects a mark that is given on the print medium at predetermined intervals in the feeding direction; and

an encoder which detects an amount of the print medium being fed.

[6] The inkjet printer according to claim 5,

wherein said encoder comprises a slave roller which rotates while keeping in contact with a surface of the print medium, and detects an angle of rotation of said slave roller.

20 [7] A printing method by an inkjet printer, for performing printing by using a print head having a plurality of ink nozzles, comprising:

a printing step of performing printing on a print target area whose width is smaller than a maximum print width of a print head by using a predetermined ink nozzle head while moving a print medium relative to said print head; and

25 a moving step of detecting that printing has been performed a predetermined number of times, and moving said print head in a direction perpendicular to a direction of feeding the print medium,

wherein after said print head is moved, printing is performed at said printing step on the print target area on the print medium, by using ink nozzles which are different at least partly from ink nozzles which were used for printing before the move.

[8] The printing method according to claim 7,

5 wherein: said printing step comprises a step of performing printing on a specific print position whose width is smaller than the maximum print width of said print head by using predetermined ink nozzles while further moving the print medium relative to a head carrier by a predetermined pitch at a time, in a state that a position of said print head in the direction perpendicular to the direction of feeding the print medium is fixed; and
10 said moving step comprises a step of moving said head carrier via said head carrier control circuit in the direction perpendicular to the direction of feeding the print medium.

[9] The printing method according to claim 7,

wherein at said moving step, said print head is moved each time it is detected that printing has been performed the predetermined number of times; and

15 each time said print head is moved at said moving step, printing is performed at said printing step by using ink nozzles which are different at least partly from ink nozzles which were used for printing before the move.

[10] The printing method by an inkjet printer according to claim 7,

wherein detection of a relative position of the print medium comprises a step of
20 detecting a mark given on the print medium at predetermined intervals in the feeding direction, and a step of detecting an amount of the print medium being fed.

[11] An inkjet printer, comprising:

a print head having a plurality of ink nozzles arranged in a direction perpendicular to a direction of feeding a print medium;

25 print head control means for driving said print head in the direction perpendicular to the direction of feeding the print medium;
position detection means for detecting a position of the print medium with respect to

said print head; and

print control means for performing printing on a print area whose width is smaller than a maximum print width of said print head by using predetermined ink nozzles of said print head while moving the print medium relative to said print head, moving said print head in the direction perpendicular to the direction of feeding the print medium via said print head control means each time it has performed printing a predetermined number of times while moving the print medium based on the position detected by said position detection means, and again performing printing on said print area by using ink nozzles which are different at least partly from said predetermined ink nozzles.

10 [12] A computer program for controlling a computer to implement a printing method for performing printing by using a print head having a plurality of ink nozzles, comprising:

15 a printing step of performing printing on a print target area whose width is smaller than a maximum print width of a print head by using a predetermined ink nozzle head among a plurality of ink nozzles possessed by said print head while moving a print medium relative to said print head;

20 a moving step of detecting that printing has been performed a predetermined number of times, and moving said print head in a direction perpendicular to a direction of feeding the print medium; and

25 a resumed printing step of performing printing on the print target area on the print medium by using ink nozzles which are different at least partly from said predetermined ink nozzles of said print head after moved.